



Vetobond EB431

Water dispersible epoxy bonding agent (to bond old concrete to new one)

Uses

- To bond existing concrete to new one.
- To eliminate cold joints as a result of casting stops.
- As a primer for bonding cementitious repair materials (Vetorep range of products).
- To bond cementitious screeds and granolithic toppings to concrete substrates.

Product Description

Vetobond EB431 is based on water-dispersible epoxy resins. It contains pigments and fine fillers and is supplied as a three-component and pre-weighed product that's ready to use and mix on-site. Vetobond EB431 is suitable for external and internal applications (on both horizontal & vertical surfaces) wherever mortar or concrete can be supported by a type of formwork. The long 'open' pot life makes it suitable for formwork or where additional steel reinforcement is needed. The product is ideal for roads, bridges, pavements, loading bays, factories, and bonded or granolithic floor toppings.

Advantages

- Adhesive bond to concrete will always exceed the tensile strength of the host concrete.
- Suitable for use on damp and dry concrete.
- Environmentally friendly, water-based, odorless, and non-flammable.
- Resistant to hydrolysis (making it ideal for external and internal applications).
- Outstanding mechanical and bond properties.
- Excellent bond to concrete, masonry, stonework, plaster, and cement boards.

Design Criteria

Vetobond EB431 has an overlay time of 24 hours at 22°C, 12 hours at 30°C, or 8 to 10 hours at 35°C. Making it more suitable for use when any additional steel reinforcement and formwork needs to be fitted or at high temperatures.

Standards Compliance

- ASTM C 881/881M-13 (Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete) as Type I, II, III, IV & V - Grade 2 class B & C.
- ASTM C881, as Type I, II, III & IV, Grade 3, Class B & C.

Technical Data

Vetobond EB431	Typical Values @ 22°C
Appearance	Clear Liquid
Pot Life (Minutes)	25
Mix Density (kg/liter)	1.1
Mix Solid Content (By weight%)	70
Initial Hardness (Hours)	48
Full Cure Time (Days)	7
Maximum Overlay Time (Hours)	24
Compressive Strength ASTM D695 (N/mm ²)	> 70
Tensile Strength (EN13286) (N/mm ²)	20
Flexural Strength (BS6319) (N/mm ²)	35
Shear Strength (BS6319) (N/mm ²)	25
Bond Strength - ASTM C882 (N/mm ²) @14 days (moist cure)	10

Note: At temperatures below 22°C, the curing rate will be slower. Conversely, at temperatures above that, the curing rate will be faster.

Usage Instructions

Surface Preparation

Clean all surfaces and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits, or algae. Roughen the surfaces and remove laitance and expose aggregate by light scabbling or grit-blasting. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing, or the use of a proprietary degreaser. A pull-off test should then assess the effectiveness of decontamination and the soundness of the substrate.

Any steel reinforcement and formwork should be prepared, cut to size and shape, and made ready for assembly before mixing the product.

Mixing

Ensure that Vetobond EB431 is thoroughly mixed. Stir the 'hardener' and 'base' separately before mixing them together to disperse any settling material. Pour the entire content of the 'hardener' tin into the 'base' tin. Mix them thoroughly using a slow-speed drill and a mixing paddle for 2 minutes (until a fully uniform color is achieved).

Scrape the sides of the tin, and continue mixing for another minute. Slowly add the Reducer part and mix for 3 more minutes.

To facilitate mixing and application at temperatures below 22°C, the separate components should be warmed in hot water (up to 25°C maximum) before mixing. If heated to 25°C, the subsequently mixed material will need to be used more speedily as the pot-life will be reduced to 4 hours. Alternatively, store the material in an environment heated to 20°C and remove it from stock immediately before use.

Application

Apply Vetobond EB431 as soon as the mixing process is completed. You can either brush Vetobond EB431 or spray it on prepared surfaces. Apply new concrete or screed to the coated substrate up to 24 hours after applying Vetobond EB431 (at 22°C or up to 12 hours at 30°C, or between 8 to 10 hours at 35°C). However, you should leave the coated substrate for one hour before placing the new concrete or screed.

Where Vetobond EB431 is used as part of a repair system to form a substrate/repair barrier, you should aim to achieve an unbroken coating. Apply one coat and allow it to gel. Then, apply a second coat and use it as the bonding coat. In some situations (e.g., sprayed concrete repairs), it may

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be advantageous to scatter dust-free sharp sand over this coat and leave it to harden.

As soon as Vetobond EB431 has been applied, any required steel reinforcement and/or formwork should be elected and fixed securely in place.

Cleaning

Remove Vetobond EB431 from tools, equipment, and mixers with water if the 3 components were mixed. The use of Vetonit Solvent XX400 may be needed. Hardened material can only be removed mechanically.

Packaging & Coverage

Product	Pack Size	Consumption
Vetobond EB431	5 Liter kit	4 m ² /liter

Stated consumption data are for general guidance. Actual consumption depends on the nature of the substrate, consistency used, method of application, and wastage.

Shelf Life & Storage

The original sealed container of Vetobond EB431 has a shelf life of 12 months, provided it is stored clear of ground in a dry, shaded place, and at a temperature below 35°C.

Health & Safety

Vetobond EB431 should not come in contact with your skin or eyes. It should not be swallowed as well. Ensure adequate ventilation and avoid inhalation of vapors. Some people are sensitive to resins, gardeners, and solvents.

Wear suitable protective clothing, gloves, and eye protection. Suppose working in confined areas, use suitable respiratory protective equipment. The use of barrier creams provides additional skin Protection.

In case of skin contact, remove immediately with a resin-removing cream followed by a thorough wash with soap and water. Do not use solvents. In case of contact with your eyes, rinse immediately with plenty of clean water and seek medical attention. If swallowed, seek medical attention immediately - Do not induce vomiting.

Vetobond EB431 is non-flammable.

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.